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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,976	07/17/2003	Jim Ibarra	PAG-356	2471
37282	7590	06/01/2005	EXAMINER	
HOWARD J. GREENWALD P.C. 349 W. COMMERCIAL STREET SUITE 2490 EAST ROCHESTER, NY 14445-2408			YAN, REN LUO	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,976	IBARRA ET AL.	
	Examiner	Art Unit	
	Ren L. Yan	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005 and 01 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-236 is/are pending in the application.
- 4a) Of the above claim(s) 1-151 and 232-236 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 152-165 and 172-231 is/are rejected.
- 7) ☒ Claim(s) 166-171 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/6/03, 4/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election with traverse of Group I, claims 152-163 and 172-231 in the reply filed on 2-18-2005 is acknowledged. In view of the amendment to independent claims 152, 230 and 231 and applicant's argument, it is agreed by the examiner that claims 164-171 should be examined together with the elected claims. Accordingly, the restriction requirement set forth in the previous Office action dated 1-25-2005 is hereby withdrawn and claims 152-231 are examined together as in the following:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 152-165, 172-176, 187-217 and 225-231 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al(6,504,559) in view of Farros et al(6,717,686). The patent to Newton et al teaches the method of manufacturing an imaged ceramic product with specified design properties as claimed including the steps of determining the design properties desired for the imaged ceramic product, fabricating an imaged decal assembly comprising a digital printed image using a digital printer, transferring the digital printed image to a ceramic substrate to produce a digitally printed ceramic substrate assembly, and heat treating the digitally printed ceramic substrate assembly to produce the imaged ceramic product. See the entire Newton

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patent for details. However, Newton et al do not teach to place and collect customer order details from a web based tool(internet) and transfer the collected order details to a service provider to produce the product according to the order details. Farros et al teach the current state of art in conducting electronic commerce by using internet service to allow a user or customer to create custom print designs and place orders of particular image print requirement on the internet. The customer order is transferred to a service provider and the order details are processed and integrated into digital format which is electronically transmitted to a digital printer to produce the printed product according to the specification of the order. See Figs. 1, 9-11 and the abstract of Farros et al for example. In view of the teaching of Farros et al, it would have been obvious to one of ordinary skill in the art to provide Newton et al with the known computer equipment connected to the internet service appropriately disposed as taught by Farros et al so as to receive electronically product orders with print design details directly from the customers and to gain new business opportunities. With respect to claims 156-163, Newton et al teach to print on various types of ceramic substrates and the selection of such a ceramic substrate would inherently involve determining the thickness, the shape, the finish and size of the ceramic substrate as well as the color and location on the ceramic substrate the printed imaged is to be transferred. With respect to claims 164, 165 and 227, the ceramic ink used in Newton et al contains glass frit and a volatilizable carbonaceous binder. Even though Newton et al do not specify the weight percentage of the frit and binder contained in the ceramic ink, in view of the wide range of the binder(15-75 weight percent) and glass frit(23-75 weight percent) as recited, it would have been obvious to those having ordinary skill in the art that the particular weight percentage of the binder and glass frit contained in the ceramic would be determined by a skilled

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artisan through routine experiment in order to achieve the desired print outcome. With respect to claims 172-175, the recited steps of formatting data relating to design properties, creating electronic files for the customer order and designs, and scanning the customer designs to generate digital images are all ordinary functions of a modern computer equipment routinely carried out in conducting electronic commerce. Regarding claims 187-217 and 225, Newton et al teach to digitally print on various types of ceramic substrates such as glass, tile, porcelain, steel, aluminum, etc. Since applicants did not invent any of the ceramic substrates as recited, the mere selection of a ceramic substrate with certain physical properties suitable to be printed by the digital printing method and the ordinary steps of preparing the selected ceramic substrate prior to the transfer printing operation as taught by Newton et al would have been obvious to one of ordinary skill in the art. With respect to claims 228 and 229, Newton et al teach the step of firing the printed ceramic product to fix the digital printed image onto the ceramic substrate as recited. However, Newton et al do not disclose the temperature and the time duration for the firing process. Since the firing process would inherently involve temperature and time duration in order to achieve the desired outcome on the printed ceramic product, one of ordinary skill in the art, when presented with the teaching of Newton et al, would be able to determine the temperature and the time duration for a particular type of ceramic substrate being printed through routine experimentation in order to obtain a satisfactory outlook for the printed ceramic product.

Claims 177-179, 223 and 224 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al in view of Farros et al as applied to claims 152 and 176 above, and further in view of Cole et al(5,069,954). Newton et al, as modified by Farros et al teach to print the digital image on a transfer decal and then transfer the printed image from the transfer decal onto the

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ceramic product. However, the detailed structure of the transfer decal is not disclosed. Cole et al teach a transfer printing method using a transfer decal the conventionality of providing the transfer decal with a transferable covercoat releasably bound to a flat flexible substrate. See Fig. 1 and the abstract in Cole et al for example. It would have been obvious to those having ordinary skill in the art to provide the transfer decal of Newton et al, with the covercoat releasably bound to a flat flexible substrate as taught by Cole et al in order to facilitate the image transfer operation.

Claim 180-185 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al in view of Farros et al as applied to claim 152 above, and further in view of Keane et al(US 2004/0046788). Newton et al, as modified by Farros et al, teach all that is claimed except for the steps as recited in claims 180-185. Keane et al also teach a method of conducting electronic commerce the way similar to Farros et al including the steps of cutting the printed template, tempering the printed product(quality check), packing, framing and then shipping the printed product to the customer. See Figs. 1A and 1B in Keane et al for example. It would have been obvious to those having ordinary skill in the art to provide the printed ceramic product of Newton et al, as modified by Farros et al with the necessary steps as taught by Keane et al in order to complete business transaction with the customer as expected.

Claims 186 and 218-222 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton et al in view of Farros et al as applied to claim 152 above, and further in view of Sundet(5,631,057). Newton et al, as modified by Farros et al teach all that is claimed except for the step of applying a pressure sensitive adhesive to the ceramic substrate. Sundet teaches a glass appliqué similar to a printed ceramic substrate as taught by the applied prior art the

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conventionality of applying a pressure sensitive adhesive 22 to the back of the glass appliqué so that it can be adhered to a planar surface for decorative purposes. In view of the teaching of Sundet, it would have been obvious to one of ordinary skill in the art to provide the digitally printed ceramic substrate of Newton et al, as modified by Farros et al with the pressure sensitive adhesive as taught by Sundet so it can be adhered to a planar surface for decorative purposes. With respect to claims 220-222, since the adhesive is sensitive to pressure in order to be applied to the glass appliqué, it follows that certain pressure applied by a laminator nip would be required in order to apply the adhesive to the glass appliqué. Accordingly, it would have been obvious to one of ordinary skill in the art to provide the applied prior art with a laminator nip under pressure during the process of applying the pressure sensitive adhesive to the printed ceramic substrate.

Claims 166-171 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement indicating allowable subject matter:

The particular requirement of heating the ceramic ink image on the ceramic substrate at the defined temperature for the defined time duration in the defined atmosphere and to have about 5 weight percent of the binder remaining as a solid phase afterwards in combination with the rest of the method steps are not taught by the prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L. Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ren L Yan
Primary Examiner
Art Unit 2854

Ren Yan
May 27, 2005